

a2 19. (Amended) A pig obtained according to the method of claim 1.

20. (Amended) Progeny of the pig according to claim 19.

a3 22. (Amended) A transgenic pig obtained according to the method of claim 3.

23. (Amended) Progeny of the pig according to claim 22.

24. (Amended) The method according to claim 1, which further comprises combining the cloned NT unit with a fertilized embryo to produce a chimeric embryo, and transferring the chimeric embryo into the uterus of a female pig and permitting the embryo to develop into a pig.

a4 27. (Amended) A pig obtained according to the method of claim 24.

28. (Amended) Progeny of the pig according to claim 27.

a5 50. (Amended) The method according to claim 48, which further comprises transferring the chimeric embryo into the uterus of a female pig and permitting the chimeric embryo to develop into a chimeric fetus.

a6 57. (Amended) The method according to claim 55, which further comprises transferring the chimeric embryo into the uterus of a female pig and permitting the chimeric embryo to develop into a chimeric fetus.

61. (Amended) A method of cloning a pig, comprising :

(i) inserting a desired differentiated pig CICM cell or cell nucleus into an enucleated pig oocyte, under conditions suitable for the formation of a nuclear transfer (NT) unit;

a7 (ii) activating the resultant nuclear transfer unit;

and

(iii) transferring said NT unit into the uterus of a female pig and permitting the NT unit to develop into a pig.

65. (Amended) A pig obtained according to the method of claim 61.

a1 66. (Amended) An organ for use as an organ xenograft, which is obtained from the pig according to claim 19.

67. (Amended) An organ for use as an organ xenograft, which is obtained from the pig according to claim 22.

68. (Amended) An organ for use as an organ xenograft, which is obtained from the pig according to claim 27.

a1 70. (Amended) An organ for use as an organ xenograft, which is obtained from the pig according to claim 65.

71. (Amended) A pig according to claim 19, which comprises an agriculturally useful trait.

72. (Amended) A pig according to claim 22, which comprises an agriculturally useful trait.

73. (Amended) A pig according to claim 27, which comprises an agriculturally useful trait.

a10 75. (Amended) A pig according to claim 65, which comprises an agriculturally useful trait.

a11 77. (Amended) An organ for use as an organ xenograft, which is obtained from the pig according to claim 76.

The following new claims are added:

a12 79. A method of producing a cloned fetal pig, comprising :

- (i) inserting a desired differentiated pig cell or cell nucleus into an enucleated pig oocyte, under conditions suitable for the formation of a nuclear transfer (NT) unit;
- (ii) activating the resultant nuclear transfer unit;
- and
- (iii) transferring said NT unit into the uterus of a female pig and permitting the NT unit to develop into a fetal pig.

80. The method according to claim 79, wherein a desired DNA is inserted, removed or modified in said differentiated pig cell or differentiated pig cell nucleus, thereby resulting in the production of a genetically altered NT unit.

81. The method according to claim 79, which comprises culturing said activated nuclear transfer unit until greater than the 2-cell developmental stage.

82. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is derived from mesoderm.

83. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is derived from ectoderm.

84. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is derived from endoderm.

85. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is a fibroblast cell or cell nucleus.

86. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is an adult cell or cell nucleus.

87. The method according to claim 79, wherein the differentiated pig cell or cell nucleus is an embryonic or fetal cell or cell nucleus.

88. The method according to claim 79, wherein the enucleated oocyte is matured

prior to enucleation.

89. The method according to claim 79, wherein the fused nuclear transfer unit is activated by exposure to two electrical pulses.

90. The method according to claim 79, wherein the fused nuclear transfer unit is activated by exposure to a single electrical pulse.

91. The method according to claim 79, wherein the fused nuclear transfer unit is activated by exposure to at least one activating factor isolated from sperm cells.

92. The method according to claim 80, wherein microinjection is used to insert a heterologous DNA.

93. The method according to claim 80, wherein electroporation is used to insert a heterologous DNA.

94. A fetal pig obtained according to the method of claim 79.

95. A transgenic fetal pig obtained according to the method of claim 80.

96. The method according to claim 79, which further comprises combining the cloned NT unit with a fertilized embryo to produce a chimeric embryo, and transferring the chimeric embryo into the uterus of a female pig and permitting the embryo to develop into a fetal pig.

97. A fetal pig obtained according to the method of claim 96.

98. Progeny of the pig according to claim 27.

99. A method of producing a cloned fetal pig, comprising :